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EXAMINER	
WU, JUNCHUN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/688,210	PRZYBILSKI ET AL.	
	Examiner	Art Unit	
	Junchun Wu	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on Jan. 16, 2007.

2. Claims 1-18 are amended and claims 19-22 are new.

3. Claims 1-22 are pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, and 5 are reject under 35 U.S.C. 102(e) as being anticipated by Ji et al. (U.S. Patent No. 6836657 B2 hereafter "Ji").

6. Per claim 1 (currently amended)

Ji discloses

- a method comprising: updating a memory block of a memory of a mobile device by merging said memory block with differential information from a differential file stored in the memory (col.11 lines 43-46 & col.5 lines 7-11 & Fig.6).

- storing the updated memory block in a backup memory area of the memory (col.11 lines 46-49).
- determining whether the updated block stored in the backup memory area is correct (col.11 lines 46-49 & col.10 lines 58-61).
- copying the updated block from the backup memory area to an original location, if the updated block is correct (col.11 65-67 & col.12 lines 1-2).

7. Per claim 2 (currently amended)

the rejection of claim 1 is incorporated and Ji further discloses

- if the updated block is correct, further comprising: writing a new block status (col.11 lines 49-61).

8. Per claim 5 (currently amended)

the rejection of claim 1 is incorporated and Ji further discloses

- the differential file is installed and stored in a user file system area of the memory (col.11 lines 34-38).

9. Claims 15-17, 20-22 are reject under 35 U.S.C. 102(e) as being anticipated by Rao (U.S. Pub. No. 2004/0123282 A1).

10. Per claim 15 (currently amended)

Rao discloses

a memory of a mobile device, comprising:

- an update-application area for storing an update-application for updating software of the memory ([0010], [0026] *"an update package comprising at least one update instruction selecting one of the plurality of banks, and converting the selected bank from the first code version to the second code version using the at least one update instruction. The mobile handset may download update package from the server to update firmware or software stored in non-volatile memory"*)
- a backup area for temporarily storing the memory block that is updated ([0027]);
- an update-application checksum area for storing the checksums ([0029]).

11. Per claim 16 (currently amended)

the rejection of claim 15 is incorporated and Rao further discloses

- the update-application area, the backup area and the update-application checksum area are located in an update means area of the memory ([0027]).

12. Per claim 17 (currently amended)

the rejection of claim 15 is incorporated and Rao further discloses

- comprising a differential file for updating the software of the memory ([0012] *a method which update an electronic device from a first code version to second code version in the non-volatile memory*).

13. Per claim 20 (New)

the rejection of claim 15 is incorporated and Rao further discloses

- checksums comprises a checksum for said update application ([0035] *"The verification in such an embodiment may involve the computation of an MD5 checksum, a CRC, or similar calculated value. This computed verification value may then be compared with a predetermined value for the bank being updated, that is contained in the update package."*).

14. Per claim 21 (New)

Rao discloses

- A memory of a mobile device, comprising: storing means, for storing an update-application for updating software of the memory ([0010] & [0026]).
- further storing means, for temporarily storing the memory block that is updated ([0027]).
- still further storing means, for storing checksums for said update application ([0029]).

15. Per claim 22 (New)

the rejection of claim 21 is incorporated and Rao further discloses

- the storing means is an update-application area for storing ([0010] & [0026]).
- the further storing means is a backup area for said temporarily storing ([0027]).
- the still further storing means is an update-application checksum area ([0029]).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ji, in view of Shipp (US Pub No. 2005/0049997 A1).

18. Per claim 6 (currently amended)

- Ji teaches differential file, but does not teach downloaded it by a user.
- However, Shipp teaches differential file is downloaded by a user ([0033]).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teachings by downloading differential file by a user as taught by Shipp in order to facilitate if client needs to get updates then it downloads the differential files from server/network and synchronizes the differential files to generate the new file.

19. Claims 3, 4, 7, 8, 9, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ji, in view of Rao.

20. Per claim 3 (currently amended)

- Ji does not teach the software to be updated is located in a software image area of the memory.
- But Rao teaches the software to be updated is located in a software image area of the memory ([0026], *the mobile handset download update package from the server to update firmware/software stored in non-volatile memory*).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teachings by locating the software to be updated in a software image area of the memory as taught by Rao in order to execute updating software in non-volatile memory if the bootstrap code determines that an update package is available with which to update the firmware/software in the mobile handset (see Rao [0025]).

21. Per claim 4 (currently amended)

- Ji does not teach the software to be updated is located in a variant software area of the memory.
- But Rao teaches the software to be updated is located in a variant image area of the memory ([0026], the mobile handset download update package from the server to update firmware/software stored in non-volatile memory).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teaching by locating the software to be updated in a variant software area of the memory as taught by Rao in order to execute updating software in non-volatile memory if the bootstrap code determines that an update package

is available with which to update the firmware/software in the mobile handset (see Rao [0025]).

22. Per claim 7 (currently amended)

- Ji fails to teach checking validity of an update-application stored in the memory.
- But Rao teaches checking validity of an update-application stored in the memory ([0026], [0029]).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teaching by checking validity an update-application stored in the memory as taught by Rao in order to enhance the performance of a fault tolerant update, each update package stored on the update server may contain predetermined verification information for each bank of the non-volatile memory to be updated. The predetermined verification information may comprise the expected value of a CRC, MD5 checksum, or similar calculated value for each of the corresponding banks following a successful update. (see Rao [0035]).

23. Per claim 8 (currently amended)

- Ji fails to teach the update-application is stored in an update-application area of the memory and in a backup area of the memory.
- But Rao teaches the update-application is stored in an update-application area of the memory and in a backup area of the memory ([0027]).

- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teachings by storing the update-application in an update-application area of the memory and in a backup area of the memory by Rao in order to ensure that the original code is not corrupted by unexpected processing errors or power interruptions. Furthermore, the existing of the backup bank helps to insure fault tolerance in the event of power interruptions and reboot or reset operations (see Rao [0027]).

24. Per claim 9 (currently amended)

- Ji teaches wherein the update-application is valid (col.11 lines 43-49, *the upgrade client generates the new EBSC (i.e. update application) by using the copy of original EBSC and the upgrade file which include difference file*)
- And before the step of updating the software, further comprising: checking if the differential file contains data for updating the software, and reading the data for updating the software from the differential file if said data is available (col.15 lines 1-9).

25. Per claim 11 (currently amended)

- Ji teaches wherein the update-application is valid, and before the updating the software, further comprising: checking if the differential file contains information for updating the update-application, and updating the update-application, verifying it and writing a new checksum for the updated update-application, if the differential file (21) contains information for updating the update-application (col.17 lines 19-39 & Fig.12).

26. Per claim 12 (currently amended)

- Ji teaches checking the validity of the update-application is verified by comparing a checksum or a backup checksum generated for an update-application stored in an update-application area of the memory or in a backup area of the memory, respectively (col.15 lines 47-51), with an original checksum stored in the memory to verify that both checksums are identical (col.9 lines 1-11).

27. Per claim 13 (currently amended)

- Ji teaches the original checksum is stored in an update-application checksum area of the memory (col.9 lines 1-11).

28. Per claim 14 (currently amended)

- Ji teaches the checksum and the original checksum are not identical but the backup checksum and the original checksum are identical, further comprising: writing the update-application from the backup area to the update-application area (col.11 lines 65-67 & col.12 lines 1-2).

29. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Ji, in view of Rao and in further view of O'Neill (US Pub No. 2004/0215755 A1).

30. Per claim 10 (currently amended)

- Ji fails to teach determining if there is a further block that needs to be updated by identifying a last updated block from a status, and writing new checksums for an updated software if there is no the further block to be updated.
- But O'Neill teaches determining if there is a further block that needs to be updated by identifying a last updated block from a status, and writing new checksums for an updated software if there is no the further block to be updated ([0157] & Fig.11).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji by the claim stated above as taught by O'Neill in order to determine if there is next bank needs to be updated by validate the status table information. Additionally, a bank pointer is point to the location where the bank update will take place. Upon completion of one bank update, the process proceeds to a new state where the bank pointer is incremented to the next consecutive bank that is to be updated (see O'Neill [0137]).

31. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ji, in view of O'Neill.

32. Per claim 18 (currently amended)

- Ji teaches a method comprising: checking validity of an update-application stored in a memory of a mobile device ([col.15 lines 47-51)], wherein said update is done by overwriting a block with the differential information at a location in the memory that is

different from an original memory location of said memory block in the memory, wherein said update-application is used for facilitating said updating (col.11 lines 40-49).

- Ji does not teach updating the software using a block-by-block approach based on differential information from a differential file downloaded to and stored in the memory if the update-application is valid.
- However, O'Neill teaches updating the software using a block-by-block approach based on differential information from a differential file downloaded to and stored in the memory if the update-application is valid ([0013], [0129]).
- Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ji's teaching by updating the software using a block-by-block approach as taught by O'Neill in order to overcomes the memory or storage space constraints of the electronic device by providing a mechanism for performing updates in a sectional or bank-by-bank manner. The bank-by-bank updating method does not require an entire image of a file or code version to be stored a "working" area, rather the update operations are performed using a reduced amount of memory or storage space by subdividing the update operations and applying them sequentially to designated code sections (see O'Neill [0127]).

33. Per claim 19 (New)

the rejection of claim 18 is incorporated and Ji further discloses

- the differential file is installed and stored in a user file system area of the memory (col.12 lines 9-20).

Response to Amendment

34. The Affidavit/Declaration filed on Jan.16 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the all references quoted by the examiner.

According to MPEP 715 Swearing Back of Reference —Affidavit or Declaration Under 37 CFR 1.131 [R-3]. "The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained." Thus, applicant submitted Affidavit/Declaration is not effective.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junchun Wu whose telephone number is 571-270-1250. The examiner can normally be reached on 8:00-17:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.[1]

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

WEI ZHEN
SUPERVISORY PATENT EXAMINER

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